MITSUBISHI ELECTRIC

AIR CONDITIONING SYSTEMS

Changes for the Better

Mitsubishi Electric Quality

Natural comfort for everybody

Mr.SLIM

R410A

Comfort Takes on New Meaning with the Power of Technology

Advanced technology makes Power Inverter Mr. SLIM the premier choice for improving comfort. It provides energy saving of up to 70% annually when compared to non-inverter models! Operating noise has also been significantly reduced.

NEW REFRIGERANT

R410A

Our air conditioners use R410A, HFC refrigerant.

Mr.SLIM

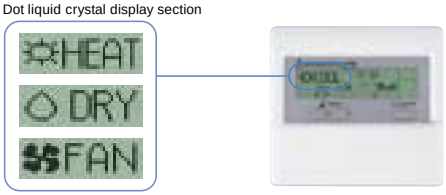
Advanced Remote Controller

Renovating air conditioning communication
by advanced MA Remote Controller newly developed

Dot Liquid Crystal Display

Acknowledging the operation and control status at a glance. The large size display upgrades visual acknowledgement capability. The operation and control status can be understood promptly.

Display example [Operation mode]
Dot liquid crystal display section



Multi-language Display

1st in the Industry!

Multi-language

8 languages can be displayed.

Display can be switched over for 8 kinds of language.

Operation Control Function

Limiting the set temperature range	Air conditioning operation always within a limited temperature range
Auto Off timer	Automatic turning off of air conditioning operation
Operation locking	Preventing the random modification of setting

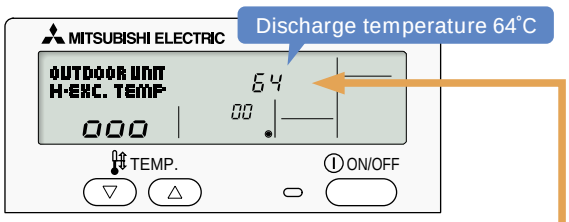
Weekly Timer

The function of the weekly timer equipped can change the set temperature in addition to the ON/OFF control. Up to 8 patterns can be set for each calendar day.

Easy Maintenance Function (Only for PUHZ-RP)

- Reduces maintenance work drastically.
- Enables you to check operation data of the indoor and outdoor units by remote controller. Furthermore, you can fix the operating frequency, from the remote controller for smoother inspection.

POWER INVERTER

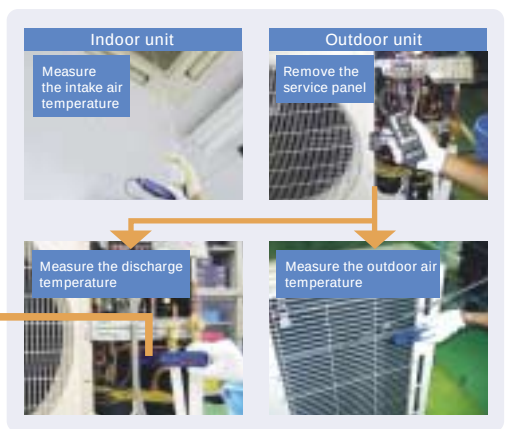


Easy maintenance information

Compressor		Outdoor unit		Indoor unit	
①	Accumulated operating time (x10 hours)	④	Heat exchanger temperature (˚C)	⑦	Intake air temperature (˚C)
②	Number of ON/OFF times (x10 times)	⑤	Discharge temperature (˚C)	⑧	Heat exchanger temperature (˚C)
③	Operating current (A)	⑥	Outdoor temperature (˚C)	⑨	Filter operating time* (Hours)

*The filter operating time is the time elapsed since the filter was reset.

Conventional inspection work



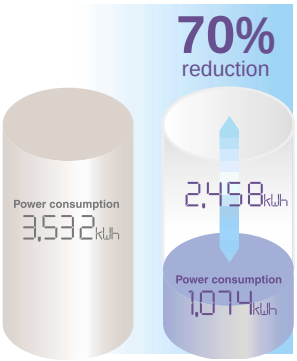
Reducing Energy Consumption

Cost performance comparison: Inverter model vs. non-inverter model

Thanks to the new Power Inverter system, a large reduction in power consumption is now possible.
This results in one of the highest COP ratings in the industry,
helping to lower overall running costs and providing great savings to customers.

Case study 1. = Power Consumption

Based on our calculations on the operating conditions shown below, the new Power Inverter system can reduce power consumption by up to 70% compared to installed model!



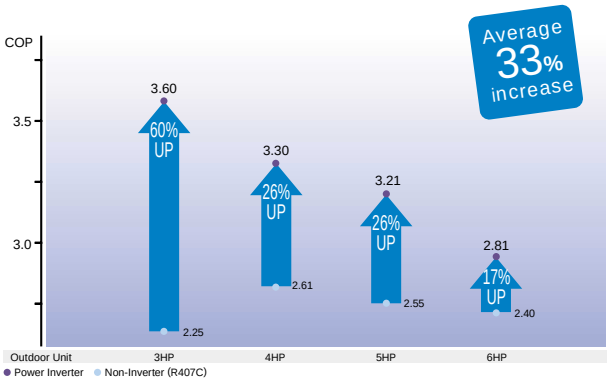
Conditions of trial calculation
(according to Japan Refrigerant Association)

Place	Office in Tokyo (Japan)
Operating time	8AM to 8PM (12 hours/day) & 6 days/week
Operating period	Cooling: April 16 ~ November 8 Heating: December 14 ~ March 23
Set temperature	Cooling: 27°C, Heating: 20°C

Before replacement:	After replacement:
Installed 8 years ago	Power Inverter
Model name PLH-3GKHB/ PUH-3YKA	Model name PLA-RP71AA/ PUHZ-RP71VHA

Case study 2. = COP

Comparison of COP between non-inverter and power inverter (4-way cassette type) models.



High Power

More Power for Faster Cooling/Heating

Higher Cooling / Heating Power

The cooling/heating capacity when outdoor temperature is low or high and the maximum operating speed of the Power Inverter Mr. Slim have been improved by up to 33% compared to the current model.

Cooling capacity — 4way cassette

	R22 Non-Inverter	R410A Power Inverter Max. (PUHZ-RP)	
3HP (71)	7.7	8.1	105%
4HP (100)	9.7	11.4	118%
5HP (125)	12.4	14.0	113%
6HP (140)	14.0	15.3	109%

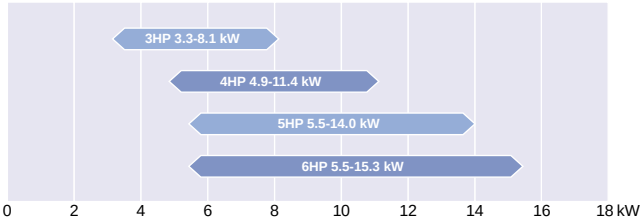
Heating capacity

	R22 Non-Inverter	R410A Power Inverter Max. (PUHZ-RP)	
3HP (71)	8.4	10.2	121%
4HP (100)	10.4	14.0	135%
5HP (125)	14.0	16.0	114%
6HP (140)	16.1	18.0	112%

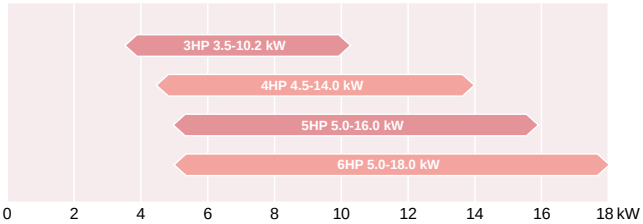
Wider Performance Range

Operation is now possible at lower speeds, thus cutting energy losses produced by the repeated on/off operation of non-inverter models. Comfort is improved while power consumption is reduced.

Cooling capacity ranges



Heating capacity ranges



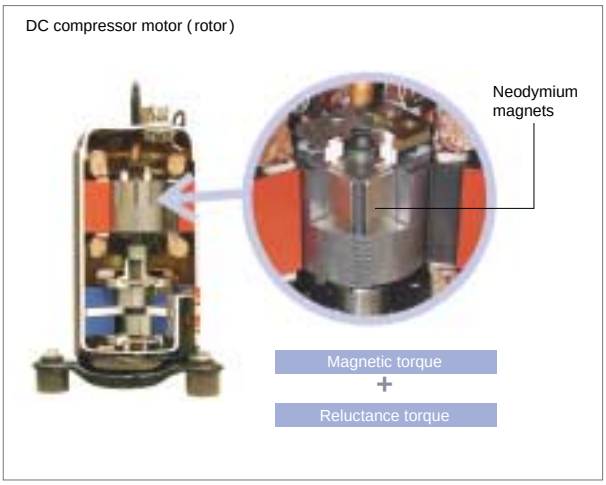
Advanced technology for High Efficiency

Numerous Leading-edge Technologies Assure High Efficiency

Reluctance DC Rotary Compressor

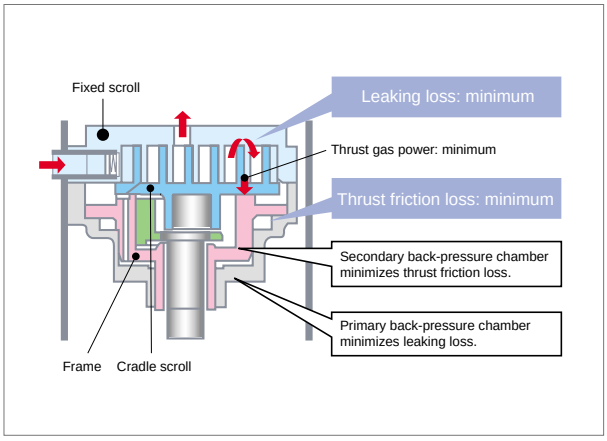
(3HP)

The reluctance DC motor has a rotor equipped with powerful neodymium magnets. The magnetic torque produced by the neodymium magnets and reluctance torque results in more efficient operation.



New Highly Efficient Scroll Compressor (4/5/6/8/10HP)

The newly developed scroll compressor is equipped with a “Frame Compliance Mechanism” that allows movement in the axial direction of the frame supporting the cradle scroll. This greatly reduces both leaking and friction loss, ensuring very high efficiency throughout the speed range.



DC Fan Motor

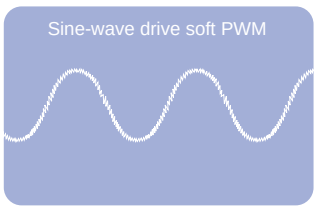
A high-efficiency DC motor drives the fan of the outdoor unit. It offers up to 60% greater efficiency than an equivalent AC motor.

Vector-Wave Eco Inverter

This produces the most efficient waveform in response to varying compressor motor rpm. By improving operating efficiency from low to high speeds, annual electricity costs are reduced.

Smooth AC wave pattern

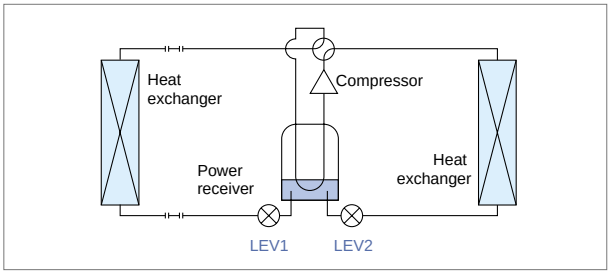
The inverter has been made compact by insert-moulding the circuit pattern in synthetic resin.
To ensure quiet operation, soft PWM control is used to prevent the metallic whine associated with conventional inverters.



Power Receiver and Twin LEV Control

(4/5/6HP)

Mitsubishi Electric has developed a power receiver and twin LEVs (linear expansion valves) that optimise the performance of the compressor. By ensuring optimum control in response to the operating waveform and outdoor temperature, this technology is tailored to the characteristics of the new refrigerant to enhance operating efficiency.

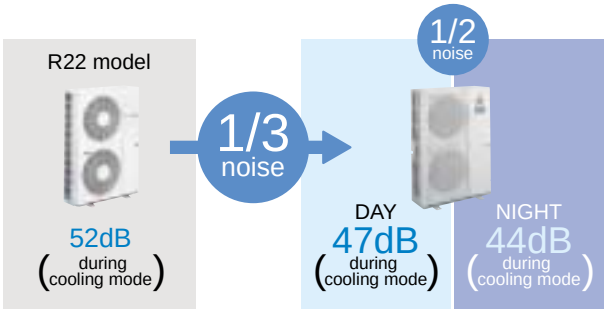


Silent Operation

Technological Improvements for Super Quiet Operation

Silent Operation
—Top Level in the Industry (PUHZ-RP)

Operation has been made very silent by improvements to the design of the fan blades and the new grille shape. The power inverter is even more silent when outside temperature drops as it automatically switches to low-noise mode to reduce operating noise by 3dB.



	R22	R410A	
	Non-Inverter	Inverter (PUHZ-RP)	
		Normal	Low Noise Mode
3HP (71)	52	47	44
4HP (100)	54	49	46
5HP (125)	55	50	47
6HP (140)	56	50	48
8HP (200)	59	55	52
6HP (250)	59	58	55

*Sound pressure level (dBA)

Low-Noise Priority Function (PUHZ-RP)

A low-noise priority function is also available by connecting a commercially available timer or selector switch. When a signal is received from the timer or switch, the unit runs in low-noise priority mode.
(Switch setting is required when installed.)

Longer Maximum Piping Length

By additional filling with refrigerant, it is now possible to have pipes up to 120 metres long, making it easier to select a layout to install the unit.

Max Piping Length can be streched to 120m		
	Max Height difference	Max.piping length
PUHZ-RP71	30m	50m
PUHZ-RP100/125/140	30m	75m
PUHZ-RP200/250	40m	120m

Single Phase Power Supply up to 6HP

Just one single phase power supply is required
despite of the large capacity units up to 6HP (RP140).
Three phase power supply is not needed. (except RP200/250YHA)

Cleaning-Free Technology

PUHZ-RP71 Features

New HAB Refrigerant Oil

1st in the Industry!

Our Inverter-driven models are the first in the industry to use hard alkyl benzene (HAB) oil—a unique refrigerant oil that degrades very slowly—for refrigeration. Employing our exclusive cleaning-free technologies such as a specially developed high-efficiency oil separator and optimum distribution of heat exchangers to prevent oil stagnation, we have made it possible to reuse previously installed pipeworks.

Refrigerant circuit lasts longer with less deterioration using the new HAB refrigerant oil*

Colour of the oil at initial stage

Colour of the oil at 10 years after use

Characteristics of the new refrigerant oil

Name: HAB Oil

Oil characteristics:

① Difficult to dissolve in the refrigerant.

② High chemical and heat stability, uniform quality, high fluidity and viscosity.

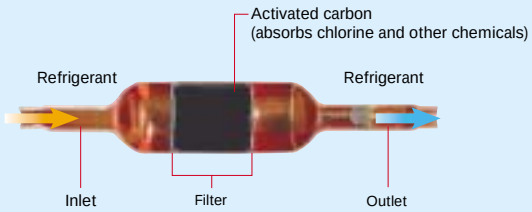
*Data taken from our lab: Test results equivalent to 10 years worth of use

PUHZ-RP100/125/140/200/250 Features

Exclusive Replacement Filter

The refrigerant oil (ester oil) used for the 10.0–25.0kw models will degrade when mixed with chemicals such as chloride found in existing pipes. To prevent oil degradation and make it possible to reuse existing pipes, Mitsubishi Electric has developed an exclusive replacement filter that uses activated charcoal to soak up chlorides.

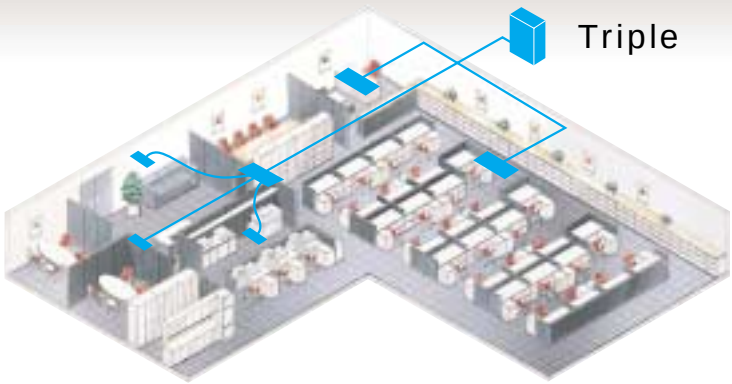
Replacement filter (conceptual diagram)



Multi-System Use

Advantages of Mr.Slim Multi system

1) Equally comfortable air conditioning for big space with multiple indoor units.
2) Various indoor unit combinations available.
3) Reduction of installation space of outdoor unit.
4) Automatic address setting for easy installation.



System example

✻All indoor units can be controlled by 1 remote controller
✻Only simultaneous operation (on/off)

Combination chart (Same capacity–Same type or Different type)

	Twin	Triple	Quadruple
PUHZ-RP100	50 x 2		
PUHZ-RP125	60 x 2		
PUHZ-RP140	71 x 2	50 x 3	
PUHZ-RP200	100 x 2	60 x 3	50 x 4
PUHZ-RP250	125 x 2	71 x 3	60 x 4
Distribution pipe	MSDD-50SR-E MSDD-50WR-E	MSDT-111R-E	MSDF-1111R-E

*P series indoor units only.

INVERTER

Mr.SLIM Product Line up

	1HP	1.6HP	2HP	2.5HP
	2.5kW	3.5kW	5.0kW	6.0kW
 4way Ceiling Cassette	SLZ (Compact Cassette)	 SLZ-KA25VA(L)	 SLZ-KA35VA(L)	 SLZ-KA50VA(L)	
	NEW PL (Power Cassette)				 PLA-RP60BA
 Ceiling Concealed	SEZ (Compact Type)		 SEZ-KA35VA	 SEZ-KA50VA	 SEZ-KA60VA
	PE				
 Ceiling Suspended	PC			 PCA-RP50GA	 PCA-RP60GA
 Wall Mounted	PK				
Outdoor Unit		 SUZ-KA25VA	 SUZ-KA35VA	 SUZ-KA50VA	 SUZ-KA60VA

*SEZ/SLZ indoor units should be connected to SUZ outdoor.
*PKA-RP71: only for PUHZ-RP outdoor connection.

3HP	4HP	5HP	6HP	8HP	10HP	Remote Controller	See Page
7.1kW	10.0kW	12.5kW	14.0kW	20.0kW	25.0kW		
						  for SEZ-VAL	14
 PLA-RP71BA	 PLA-RP100BA	 PLA-RP125BA	 PLA-RP140BA			 	9
 SEZ-KA71VA						  Optional	14
 PEA-RP71EA	 PEA-RP100EA	 PEA-RP125EA	 PEA-RP140EA	 PEH-RP200MYB	 PEH-RP250MYB		11
 PCA-RP71GA	 PCA-RP100GA	 PCA-RP125GA	 PCA-RP140GA			  Optional	12
 PKA-RP71FAL	 PKA-RP100FAL					 Optional 	13
 SUZ-KA71VA   PUHZ-RP71VHA	 PUHZ-RP100VHA	 PUHZ-RP125VHA	 PUHZ-RP140VHA	 PUHZ-RP200YHA	 PUHZ-RP250YHA		

NEW

4Way Ceiling Cassette

PL Series

(i-see Sensor: optional)

PLA-RP60/71
100/125/140BA

Stylish and Advanced PL Series makes any places more comfortable!

Wide Airflow

With a new horizontal vane blowing wide-angle airflow, the room is cooled sufficiently from wall to wall. The 20% reduced fan speed from our conventional model makes cooling more people friendly than ever.

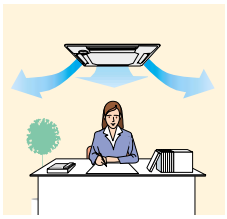
Conventional model

PLA-RP**BA

Less Cold Draft

Reduces the potentially irritating sensation of cold draft. Newly adopted “chilly airflow prevent mode*” ensures horizontal airflow–eliminating direct onslaughts of cool air to curb any chilly sensation.

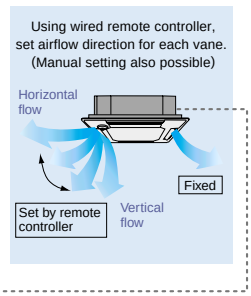
*Setting by remote controller is required. It may cause dirt on the ceiling if used in the condition the airflow is not stable.



Horizontal airflow
cuts drafty sensation.

Independent Vane Direction Setting

Airflow direction of each vane can be set by wired remote controller. Adjusting vane direction to fit interior layouts or cooling/heating seasonal transition was difficult. Now, with our PL Series, settings can be changed easily.

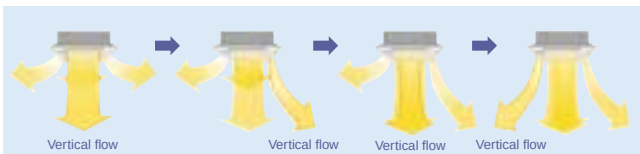


With wired remote controller, possible to change the setting at any time.

Wave Airflow Mode for Heating

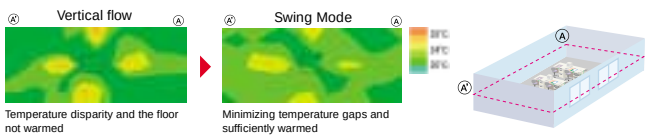
Each vane can be swing automatically with timelag for minimizing temperature gap in the room.

● **“Wave Airflow” operation image**



Mutual horizontal and vertical airflow operation make a room comfortable from corner to corner.

● **Wave control effect thermo graph**



Temperature disparity and the floor not warmed

Minimizing temperature gaps and sufficiently warmed

SPECIFICATIONS: 4Way Ceiling Cassette type (PLA) NEW

Indoor unit		PLA-RP60BA	
Outdoor unit		SUZ-KA60VA	
Function		Cooling	Heating
Capacity (min.-max.)	(kW)	5.7 (1.1-6.3)	6.9 (0.9-8.0)
Input	(kW)	1.94	2.11
COP		2.94	3.27
Indoor unit		PLA-RP60BA	
Power supply			
Airflow (Lo-Mi1-Mi2-Hi)	CMM	12-14-16-18	
	L/S	200-233-267-300	
Sound pressure level	(dB)	28-29-31-32	
Dimension	Height (mm)		
	Width (mm)		
	Depth (mm)		
Weight	(kg)		

Auto Fan Speed Mode

The fan speed is changed automatically depending on the gap between set temperature and room temperature. In case of cooling, operation starts with 'Hi' fan speed and once the room temperature gets stable, the fan speed automatically decreases to low level for more comfort.

Fan speed setting by remote controller (4 levels)

Lo → Mi1 → Mi2 → Hi → Auto

✻Special setting is required for wireless remote controller.

Quiet Operation

Thanks to the improvement of airflow route and large caliber power flow fan, we can realize quiet operation.

Power Flow Fan

"Pure White" Colour

Our new PL Series have beautiful pure white coloured panel and wired remote controller. A great match for interior appointments, generating a clean and streamlined look.

Other Features

- Stylish vane shutter (when the unit is off)
- Drain up – max. 850mm
- Wireless remote controller available
- Duct flange for fresh air intake (option)

Automatic Elevating Panel (option)

Easy to use, easy for maintenance.
With 8 levels to fit all ceiling heights.
Filter cleaning and other maintenance can be operated easily.

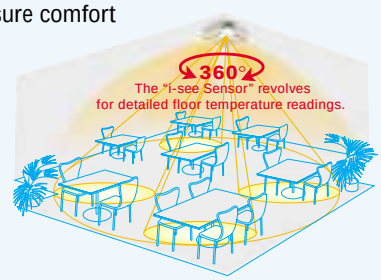
Elevating (up-down) controller

Wired remote controller (optional for Auto Elevating Panel)

✻The receiver on the elevating panel can be used for wireless remote controller.

The newly developed 4Way Ceiling Cassette can be equipped with the radiant temperature sensor, "i-see Sensor" to ensure comfort of the room.

"i-see Sensor" is bad news for temperature disparity and electric bill waste (optional corner panel)

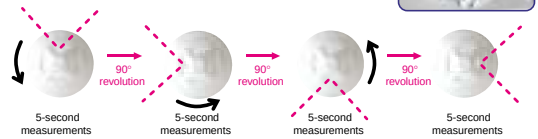


The radiant temperature sensor "i-see Sensor" for your comfort

The "i-see Sensor," a radiant temperature sensor built from new concept engineering available only at Mitsubishi. The control of the floor temperature at foot level is required to realize a comfortable air conditioning in your office or shop. The "i-see Sensor" measures floor temperature with rotating 360° and provides you the comfort which you have not ever experienced.

■"i-see Sensor" operation image

Operates at 5-second interval for precision measurement, and checking the temperature of the floor.



- The "i-see Sensor" detects infrared rays emanating from the walls and floor. The temperature is calculated basis on infrared ray energy. It makes it possible to check the radiant temperature (the floor temperature).
- Upon big gap with the set temperature, measurements are taken at 4 points every 2 minutes. Once stabilized, the sensor revolves once every 5 minutes.

"I feel" Temperature Control

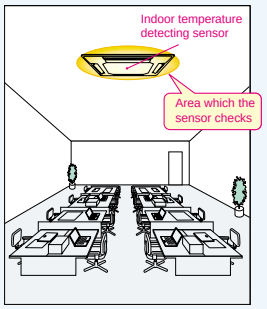
The sensory temperature is calculated by measuring the air intake temperature and the floor temperature. This technology makes it possible to avoid overcooling or overheating.

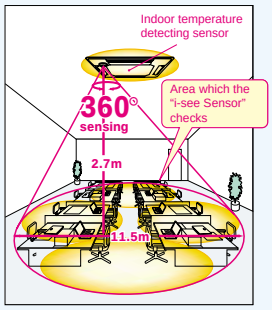
The conventional model only measured and monitored indoor temperature near the ceiling.

As the current packaged air conditioners only monitor temperature levels near the ceiling, they fail to detect vertical between ceiling and floor temperature gaps.

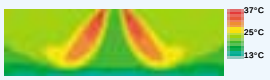
Besides the ceiling zone, the floor temperature are also checked to keep the room comfortable.

New PL Series (with "i-see Sensor") naturally measures indoor temperature and floor temperature without any timelag.

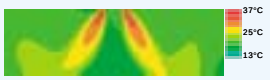




Heating
Set temerature: 23°C
without "i-see Sensor"



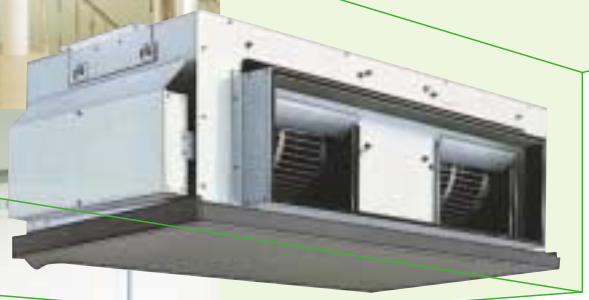
Heating
Set temperature: 20°C
with "i-see Sensor"+ Auto Fan Speed



PLA-RP71BA		PLA-RP71BA		PLA-RP100BA		PLA-RP125BA		PLA-RP140BA	
SUZ-KA71VA		PUHZ-RP71VHA		PUHZ-RP100VHA		PUHZ-RP125VHA		PUHZ-RP140VHA	
Cooling	Heating	Cooling	Heating	Cooling	Heating	Cooling	Heating	Cooling	Heating
7.1 (0.9-8.1)	8.0 (0.9-10.2)	7.1 (3.3-8.1)	8.0 (3.5-10.2)	10.0 (4.9-11.4)	11.2 (4.5-14.0)	12.5 (5.5-14.0)	14.0 (5.0-16.0)	14.0 (5.5-15.3)	16.0 (5.0-18.0)
2.53	2.49	2.12	2.21	3.03	3.39	3.89	4.27	4.99	4.91
2.81	3.21	3.35	3.61	3.30	3.30	3.21	3.28	2.81	3.26
PLA-RP71BA		PLA-RP71BA		PLA-RP100BA		PLA-RP125BA		PLA-RP140BA	
Single phase, 50Hz, 220-240V									
14-16-18-21				20-23-26-30		22-25-28-31		24-26-29-32	
233-267-300-350				334-384-434-501		367-417-467-517		400-434-484-534	
28-30-32-34				32-34-37-40		34-36-39-41		36-39-42-44	
Unit: 258, Panel: 35				Unit: 298, Panel: 35					
Unit: 840, Panel: 950									
Unit: 840, Panel: 950									
Unit: 23, Panel: 6				Unit: 25, Panel: 6				Unit: 27, Panel: 6	

Ceiling Concealed PE Series

PEA-RP71/100EA

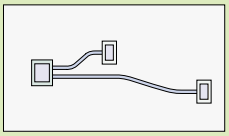


PEA-RP125/140EA
PEH-RP200/250MYB

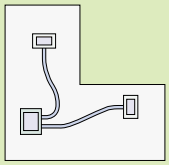
This flexible, high-quality series, which is concealed in the ceiling to enhance interior aesthetics, provides all the benefits of split-type models plus much more.

Limitless Installation Possibilities

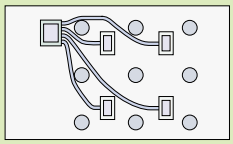
Offering all the benefits of split-type models plus other important advantages, the PE series is not only easy to install but also very versatile. For example, the distance between the air-intake and air-outlet vents can be varied to allow airflow to be positioned in the optimum location.



■ Long-rectangular room



■ L-shaped room



■ Room with fixed ceiling fixtures

High Static Pressure

Even when ductwork is very long, the volume of airflow remains large enough due to the high static pressure available.

Computerized Dehumidification

The electronic dehumidifier mode — where fan speed is controlled precisely — increases dehumidification volume while improving dehumidifying efficiency.

SPECIFICATIONS: Ceiling Concealed type (PE)

Indoor unit		PEA-RP71EA		PEA-RP71EA		PEA-RP100EA		PEA-RP125EA		PEA-RP140EA		PEH-RP200MYB		PEH-RP250MYB	
Outdoor unit		SUZ-KA71VA		PUHZ-RP71VHA		PUHZ-RP100VHA		PUHZ-RP125VHA		PUHZ-RP140VHA		PUHZ-RP200YHA		PUHZ-RP250YHA	
Function		Cooling	Heating	Cooling	Heating	Cooling	Heating	Cooling	Heating	Cooling	Heating	Cooling	Heating	Cooling	Heating
Capacity (min.-max.)	(kW)	6.9 (0.9-8.1)	8.0 (0.9-10.2)	7.1 (3.3-8.1)	8.4 (3.5-10.6)	10.0 (4.9-11.4)	11.2 (4.5-14.0)	12.5 (5.5-14.0)	14.0 (5.0-16.0)	14.0 (5.5-15.3)	16.0 (5.0-18.0)	19.0 (10.0-22.4)	22.4 (10.0-25.0)	22.0 (12.5-28.0)	27.0 (15.7-31.5)
Input	(kW)	2.90	2.49	2.48	2.51	3.25	3.20	4.42	4.30	5.03	4.73	7.28	6.98	8.43	8.41
COP		2.38	3.21	2.86	3.35	3.08	3.50	2.83	3.25	2.78	3.38	2.61	3.21	2.61	3.21
Indoor unit		PEA-RP71EA		PEA-RP71EA		PEA-RP100EA		PEA-RP125EA		PEA-RP140EA		PEH-RP200MYB		PEH-RP250MYB	
Power supply		Single phase, 50Hz, 220-240V										Three phase, 50Hz, 380-415V			
Airflow (Lo-Hi)	CMM	22-27				27-34		34-42		48-60		48-60		64-80	
	L/S	367-450				450-567		567-700		800-1000		800-1000		1067-1333	
External static pressure Pa (mmAq)		125Pa (12.7mmAg)										155Pa (15.7mmAg)			
Sound pressure level	(dB)	52-55				54-58				51-55		52.5-48.5		53-50	
Dimension	Height (mm)	428				428		428		428		428		428	
	Width (mm)	785				1,055		1,255		1,415		1,380		1,580	
	Depth (mm)	690										650			
Weight	(kg)	46				58		72		73		70		80	

Designed for ultra-quiet operation and easy maintenance, the PC series provides exceptional air conditioning.

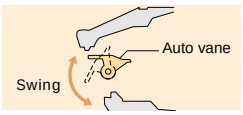
Ceiling Suspended PC Series

Extra Slim, Extra Stylish

Sleek and slim with stylishly curved lines, the PC series blends right into any interior. It also features a single air outlet which allows the auto vane to act as a shutter when the unit is turned off.

Auto Vane Distributes Air Evenly

The auto vane swings up and down automatically to distribute air more evenly to every corner of the room.



Keeps Airflow at Optimum Level According to Ceiling Height

The most suitable airflow can be selected for ceilings up to 3.5m high, enhancing air conditioning efficiency and comfort.

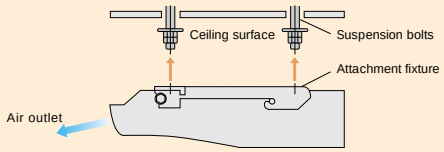
	Standard	High ceiling
Ceiling height	2.7m	3.5m

Greatly Simplified Installation

The new direct suspension system eliminates the task of removing the attachment fixture from the main unit, greatly shortening installation time.

Direct suspension with attachment fixture attached

1. Attach the washer and nuts to the suspension bolts.
2. Suspend the the main units to the suspension bolts.
3. Secure the nuts.



Drain Piping Can be Connected in One of Two Directions, to the Left or the Right of the Unit.

(Drain water lift-up mechanism can be supplied as an optional part.)

PCA-RP50/60/71
100/125/140GA

optional

SPECIFICATIONS: Ceiling Suspended type (PCA)

Indoor unit		PCA-RP50GA		PCA-RP60GA		PCA-RP71GA		PCA-RP71GA		PCA-RP100GA		PCA-RP125GA		PCA-RP140GA	
Outdoor unit		SUZ-KA50VA		SUZ-KA60VA		SUZ-KA71VA		PUHZ-RP71VHA		PUHZ-RP100VHA		PUHZ-RP125VHA		PUHZ-RP140VHA	
Function		Cooling	Heating	Cooling	Heating	Cooling	Heating	Cooling	Heating	Cooling	Heating	Cooling	Heating	Cooling	Heating
Capacity (min.-max.)	(kW)	4.7 (1.1-5.4)	5.5 (0.9-6.6)	5.5 (1.1-6.3)	6.9 (0.9-8.0)	7.1 (0.9-8.1)	8.0 (0.9-10.2)	7.1 (3.3-8.1)	8.0 (3.5-10.2)	10.0 (4.9-11.4)	11.2 (4.5-14.0)	12.5 (5.5-14.0)	14.0 (5.0-16.0)	14.0 (5.5-15.3)	16.0 (5.0-18.0)
Input	(kW)	1.80	1.92	1.92	2.05	2.53	2.49	2.14	2.43	2.92	3.26	3.89	4.34	4.96	4.60
COP		2.61	2.86	2.86	3.37	2.81	3.21	3.31	3.29	3.42	3.44	3.21	3.23	2.82	3.48
Indoor unit		PCA-RP50GA		PCA-RP60GA		PCA-RP71GA		PCA-RP71GA		PCA-RP100GA		PCA-RP125GA		PCA-RP140GA	
Power supply		Single phase, 50Hz, 220-240V													
Airflow (Lo-Mi1-Mi2-Hi)	CMM	10-11-12-13		14-15-16-18						20-21-23-25		27-30-32-34			
	L/S	167-183-200-217		233-250-267-300						333-350-383-417		450-500-533-567			
Sound pressure level	(dB)	37-38-40-42		37-39-41-43						40-41-43-45		41-43-45-46		42-44-46-48	
Dimension	Height (mm)	210										270			
	Width (mm)	1,000		1,310								1,620			
	Depth (mm)	680													
Weight	(kg)	27		34						37		43		45	

Wall Mounted PK Series

Elegant design and compact dimensions are ideal for offices, stores and residential uses.

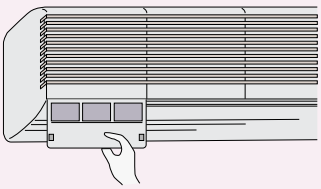
PKA-RP71/100FAL

Auto-flap Shutter Enhances Good Looks

The Intake Grille Filter Can be Completely Removed Allowing Easy Cleaning

(Can be washed in water)

Filter slides out



4-way Piping Provides more Flexibility in Selecting Installation Sites

Wired Remote Controller Available

(Optional)

A separately sold wired remote controller and a terminal block are available to suit various installation sites.

optional

SPECIFICATIONS: Wall Mounted type (PKA)

Indoor unit		PKA-RP71FAL		PKA-RP100FAL	
Outdoor unit		PUHZ-RP71VHA		PUHZ-RP100VHA	
Function		Cooling	Heating	Cooling	Heating
Capacity (min.-max.)	(kW)	7.1 (3.3-8.1)	8.0 (3.5-10.2)	10.0 (4.9-11.4)	11.2 (4.5-14.0)
Input	(kW)	1.98	2.40	2.93	3.25
COP		3.59	3.33	3.41	3.45
Indoor unit		PKA-RP71FAL		PKA-RP100FAL	
Power supply		Single phase, 50Hz, 220-240V			
Airflow (Lo-Mi1-Mi2-Hi)	CMM	15-20		22-28	
	L/S	250-333		367-467	
Sound pressure level	(dB)	39-45		41-46	
Dimension	Height (mm)	340			
	Width (mm)	1,400		1,680	
	Depth (mm)	235			
Weight	(kg)	24		26	

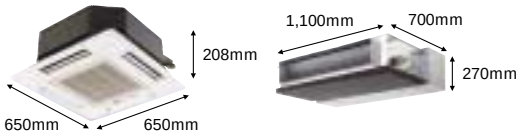
Our super-quiet compact indoor unit, with cutting edge remote control. Comfortable operation for any places.

Compact 4Way Cassette Compact Ceiling Concealed

SLZ/SEZ Series

Compact Design

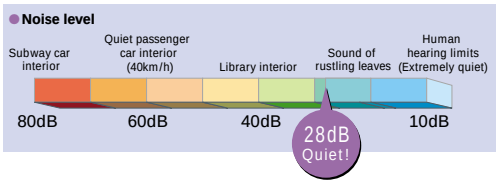
Models for any room in the house. For 2×2 ceiling installation, the SLZ compact cassette, for a perfect fit. The ceiling concealed model, the SEZ Series, compresses installation space at only 270mm in height.



SLZ-KA25/35/50 SEZ-KA35/50/60/71

Very Quiet Operation

The S Series, for whisper-quiet operation.
Hushed noise level of 28dB (SLZ-KA25VA for cooling).
For calm and comfy space.
You would not recognize the existence of air conditioner.



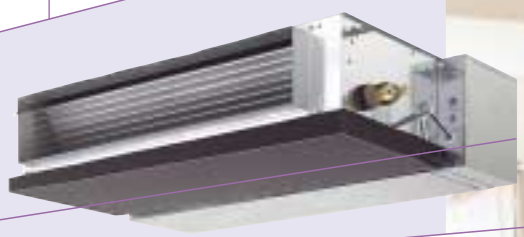
Energy Saving

Low energy consumption–a must for today's air conditioners. The SLZ/SEZ Series–key to fresh, cost-effective air comfort.

Air-Cleaning Filter

This built-in filter removes dust and contaminants, keeping air fresh all the time. Maintenance is as simple as vacuuming. And more, SLZ Series have a long life filter. It can keep their performance about 2,500 hours without replacement.

SLZ-KA25/35/50VA(L)



SEZ-KA35/50/60/71VA

optional for SEZ

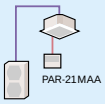
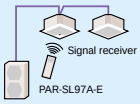
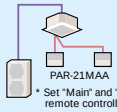
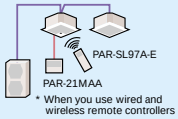
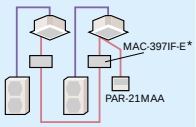
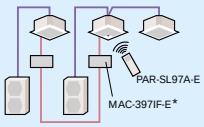
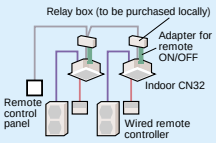
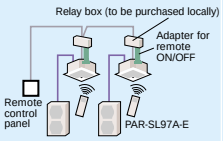
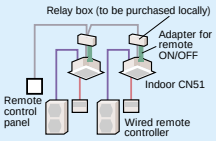
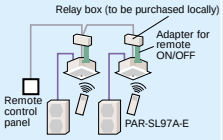
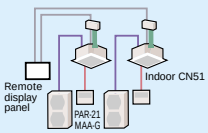
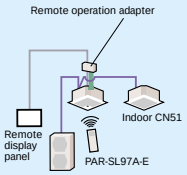
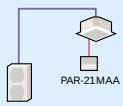
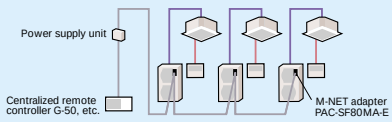
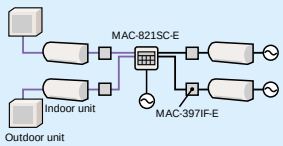
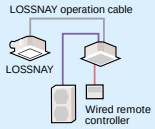
SPECIFICATIONS: Compact 4Way Cassette type/Compact Ceiling Concealed type (SLZ, SEZ)

Indoor unit		SLZ-KA25VA(L)		SLZ-KA35VA(L)		SLZ-KA50VA(L)		SEZ-KA35VA		SEZ-KA50VA		SEZ-KA60VA		SEZ-KA71VA	
Outdoor unit		SUZ-KA25VA		SUZ-KA35VA		SUZ-KA50VA		SUZ-KA35VA		SUZ-KA50VA		SUZ-KA60VA		SUZ-KA71VA	
Function		Cooling	Heating	Cooling	Heating	Cooling	Heating	Cooling	Heating	Cooling	Heating	Cooling	Heating	Cooling	Heating
Capacity (min.-max.)	(kW)	2.5 (0.9-3.2)	3.0 (0.9-4.5)	3.5 (1.0-3.9)	4.0 (0.9-5.0)	4.6 (1.1-5.2)	5.0 (0.9-6.5)	3.5 (1.0-3.9)	4.0 (0.9-5.0)	5.0 (1.1-5.6)	5.9 (1.1-7.2)	5.5 (1.1-6.3)	6.9 (0.9-8.0)	7.1 (0.9-8.3)	8.1 (0.9-10.4)
Input	(kW)	0.69	0.83	1.06	1.10	1.63	1.55	1.06	1.10	1.78	1.84	1.96	2.45	2.46	2.36
COP		3.62	3.61	3.30	3.64	2.82	3.22	3.30	3.64	2.81	3.21	2.81	2.82	2.89	3.43
Indoor unit		SLZ-KA25VA(L)		SLZ-KA35VA(L)		SLZ-KA50VA(L)		SEZ-KA35VA		SEZ-KA50VA		SEZ-KA60VA		SEZ-KA71VA	
Power supply		Single phase, 50Hz, 230V													
Airflow (Lo-Hi)	CMM	8-9-10		8-9-11				10-13		12-17		12-20			
	L/S	133-150-167		133-150-183				167-217		200-283		200-333			
External static pressure Pa (mmAq)		0						Std: 30, Max: 50							
Sound pressure level	(dB)	28-31-37		29-33-38		30-34-39		30-35		31-39		32-43			
Dimension	Height (mm)	unit: 208, panel: 20						270							
	Width (mm)	unit: 570, panel: 650						1,100							
	Depth (mm)	unit: 570, panel: 650						700							
Weight	(kg)	unit: 16.5, panel: 3						33.5						35	

*SLZ-KA VAL is with a wireless remote controller.

System Controls (P series)

Versatile system controls can be realized by using optional parts, relay circuits, control panels, etc.

	System examples		Details	Major optional parts required
	Wired remote controller	Wireless remote controller		
A 1-remote controller control Standard System	 (Example of 1 : 1 system)	 (Example of Simultaneous Twin)	• Either wired type or wireless type remote controller can be used.	None
B 2-remote controller control With 2 remote controllers, control can be performed locally and remotely from 2 spots.	 (Example of 1 : 1 system)	 (Example of Simultaneous Twin)	• Up to 2 remote controllers can be connected to 1 group. • Both wired and wireless remote controllers can be used in combination.	• Wired Remote Controller PAR-21MAA • Wired Remote Controller Kit for PKA PAR-21MAAT-E • Wireless Remote Controller PAR-SL97A-E • Wireless Remote Controller Kit for PCA PAR-SL99B-E
C Group Control One remote controller can control plural air conditioners simultaneously under a same setting. * The setting of the refrigerant address is required for outdoor unit.	 (Example of 1 : 1 system x 2)	 (Example of 1 : 1 + Simultaneous Twin)	• One remote controller can control up to 16 refrigerant systems. • Outdoor unit can be started/stopped (thermostat ON/OFF) individually. • Up to 2 remote controllers can be connected.	• MAC-397IF-E is required for each indoor unit if the outdoor unit is SUZ or MXZ. (If the outdoor unit is P series, no optional parts are required.)
D Operation Control by Level Signal (DC12V) Air conditioner can be started/stopped remotely. In addition, the ON/OFF by local remote controller can be prohibited/permitted.	 (Example of 1 : 1 system x 2)	 (Example of 1 : 1 system x 2)	• Operation other than ON/OFF (adjustment of temperature, fan speed, and air direction, for example) can be performed even when remote controller operation is prohibited. • Timer control is possible with an external timer.	• Adapter for remote ON/OFF PAC-SE55RA-E • Relay box (to be purchased locally) • Remote control panel (to be purchased locally)
E Operation Control by Pulse Signal	 (Example of 1 : 1 system x 2)	 (Example of 1 : 1 system x 2)	• Operation other than ON/OFF (adjustment of temperature, fan speed, and air direction, for example) can be performed even when remote controller operation is prohibited. • Timer control is possible with an external timer.	• Adapter for remote ON/OFF PAC-SE55RA-E • Relay box (to be purchased locally) • Remote control panel (to be purchased locally)
F Remote Display of Operating Status Operating status can be displayed at a distant place.	 (Example of 1 : 1 system)	 (Example of Simultaneous Twin)	• Operation/emergency signal can be received at a distant place (no-voltage signal).	• Remote display panel (to be purchased locally) • Remote ON/OFF adapter PAC-SE55RA-E • Connector cable for remote display PAC-SA88HA-E/ PAC-725AD (10 pcs. x PAC-SA88SA) • Remote operation adapter PAC-SF40RM *Unable to use with wireless remote controller • Remote display panel (to be purchased locally)
G Timer Operation Allows ON/OFF with timer *For the control by external timer, refer to D Operation Control by Level Signal.	 (Example of 1 : 1 system)		• Weekly timer: ON/OFF and up to 8 pattern temperatures can be set for each calendar day. (Initial setting) • Simple timer: ON/OFF can be set once each within 72 hr. in a unit of one hour. • Auto-off timer: Operation will be switched off after elapsing a certain time. Set time can be changed from 30 min. to 4 hr. at 30 min. intervals. *Simple timer and Auto off timer cannot be used at the same time.	Standard functions of PAR-21MAA
H Centralized Control Centralized control of dispersed air conditioning equipment allows effective monitoring/controlling.	 (Connection with M-NET system)		• Mounting the adapter for M-NET connection to the outdoor unit allows MELANS (M-NET system) connection. • Allows centralized control by MELANS.	M-NET adapter: PAC-SF80MA-E
<Outdoor unit: SUZ or MXZ> Up to 8 indoor units can be switched ON/OFF with one remote controller.			• Centralized remote controller can be connected to each indoor unit via interface. • Individual ON/OFF and switching OFF at a time is possible with centralized controller. The ON/OFF status of each unit can be confirmed by the LED on the centralized remote controller.	• MAC-397IF-E (Interface) • MAC-821SC-E (Centralized remote controller)
I Interlocking with LOSSNAY LOSSNAY can be controlled with remote controller	 (Example of 1 : 1 system)		• LOSSNAY can be connected to the indoor unit.	SLIM-LOSSNAY connection cable

Main features of Mr.SLIM (Inverter use)

Name of function		Explanation	PLA	PEA	PKA	PCA
Control	Weekly timer		●	●	●	●
	Lossnay connectable	Connection with Lossnay via optional adapter.	●	●	●	●
	System control		●	●	●	●
	M-NET connectable	Connection with City-Multi control via optional M-NET converter.	○	○	○	○
	Operation lock		●	●	●	●
	Limit setting temp.		●	●	●	●
	Auto off timer		●	●	●	●
Airflow	High ceiling airflow setting	If indoor unit installed high ceilling, the airflow can be reached to floor.	●	—	—	●
	72 patterns airflow	According to the layout of room, ideal airflow pattern can be selected.	●	—	—	—
	Auto vane shutter	When operation is stopped, air flap is automatically closed.	●	—	●	●
	Auto swing airflow	The vane move up and down automatically for comfortable air distribution.	●	—	●	●
	4 notch fan speed	Fan speed can be selected by 4 notch (pattern)	●	—	—	●
	2 notch fan speed	Fan speed can be selected by 2 notch (pattern)	—	●	●	—
Comfort	Auto C/H changeover	Operation of cooling or heating is automatically changed according to condition.	●	●	●	●
	Computer dehumidification		●	●	●	●
	Hot start	No cool air being blown out when the heating operation is started.	●	●	●	●
	Quiet operation		●	●	●	●
	Fresh air intake		●	—	—	—
Maintenance	Easy maintenance function		●	●	●	●
	Self-diagnostic display on R/C	From remote controller, error code can be checked.	●	●	●	●
	Long life filter		●	—	—	●
	High efficiency filter (Optional)		○	—	—	○
	Filter sign	On remote controller, user can check the time to replace the filter.	●	—	—	●
	Easy filter cleaning	Filter can be removed easily.	●	—	●	—
	Handy corner pocket	From this pocket, maintanance work can be done without removing the panel.	●	—	—	—
	Simplified drain pan cleaning	Drain pan can be cleaned without removing the panel.	●	—	—	—
Installation	Chargeless system		●	●	●	●
	Drain water lift up		●	—	○	○
	Function setting by remote controller		●	●	●	●
	Test operation from outdoor unit	PUHZ only	●	●	●	●
Others	Multiple system		●	●	●	●
	Low temp. operation		●	●	●	●
	Auto restart function		●	●	●	●

● Standard ○ Optional

Specifications: Outdoor unit

Outdoor unit							
			SUZ-KA25VA	SUZ-KA35VA	SUZ-KA50VA	SUZ-KA60VA	SUZ-KA71VA
External finish			Munsell 3.0Y 7.8/1.1				
Power supply			Single phase, 50Hz, 230V				
Compressor output		(kW)	0.55	0.65	0.85		1.3
Airflow <cool/heat>		CMM (L/S)	34 (568) / 32 (534)	33 (551)	49 (818)		
Sound pressure level (dB)	Cooling		46	47	53		
	Heating		46	48	55		
Sound power level		(dB)	59	61	68		
Dimension	Height	(mm)	550		850		
	Width	(mm)	800		840		
	Depth	(mm)	285		330		
Weight		(kg)	33	37	53		58
Changeless piping length		(m)	7				
Max. pipng length		(m)	20		30		
Breaker Size		(A)	10		20		

*These figures are only outdoor unit.

Outdoor unit								
			PUHZ-RP71VHA	PUHZ-RP100VHA	PUHZ-RP125VHA	PUHZ-RP140VHA	PUHZ-RP200YHA	PUHZ-RP250YHA
External finish			Munsell 3.0Y 7.8/1.1				Munsell 3.0Y 7.8/1.1	
Power supply			Single phase , 50Hz , 220-240V				3 phase , 50Hz , 380-415V	
Compressor output		(kW)	1.6	1.9	2.4	2.9	4.5	5.5
Airflow		CMM (L/S)	55 (920)	100 (1670)			150 (2205)	
Sound pressure level (dB)	Cooling mode		47	49	50	50	55	58
	Silent mode		44	46	47	48	52	55
	Heating mode		48	51	52	52	56	58
Sound power level		(dB)	66	69	70	71	73	76
Dimension	Height	(mm)	943	1350			1798	
	Width	(mm)	950	950			900	
	Depth	(mm)	330+30	330+30			750	
Weight		(kg)	75	121			198	
Changeless piping length		(m)	30	30			30	
Max. pipng length		(m)	50	75			80	
Protection device			Discharge thermo, HP switch	Discharge thermo, HP switch, LP switch			Discharge thermo, HP switch, LP switch	
Rated running current <cool/heat>		(A)	8.04/9.74	12.33/13.94	15.80/17.5	20.73/20.37	10.0/10.4	11.5/12.4
Breaker Size		(A)	25	32	32	40	32	

*These figures are only outdoor unit.

Notes for All Specifications

Rating conditions (AS/NZS 3823)
Cooling - Indoor: 27°C (80° F) DB, 19°C (66° F) WB
Outdoor: 35°C (95° F) DB
Heating - Indoor: 20°C (68° F) DB
Outdoor: 7°C (45° F) DB, 6°C (43° F) WB
Refrigerant piping length (one-way); 5m (16ft.)

Total input based on the indicated voltage (indoor/outdoor)

	Indoor	Outdoor
50Hz	Single phase, 230V	Single phase, 230V / 3 phase, 400V

Guaranteed Operating Range

		SUZ-KA		PUHZ-RP
		25/35	50/60/71	all
Cooling	Upper limit	46°C	43°C	46°C
	Lower limit	–10°C	–15°C	–5°C (–15°C*1)
Heating	Upper limit	24°C	24°C	21°C
	Lower limit	–15°C	–10°C	–20°C*2

*1 With the optional air outlet guide, the operation at –15°C outdoor temperature is possible.
*2 –11°C for PUHZ-RP71.

Optional Parts

Part Name	Model Name	Application Name
Joint Pipe ø9.52 → ø12.7	PAC-SG73RJ-E	PUHZ-RP71
Joint Pipe ø15.88 → ø19.05	PAC-SG75RJ-E	PUHZ-RP100/125/140
Filter Dryer ø9.52 (liquid)	PAC-SG82DR-E	PUHZ-RP71/100/125/140
Filter Dryer ø12.7 (liquid)	PAC-SG85DR-E	PUHZ-RP200/250
Air Outlet Guide	PAC-SG59SG-E	PUHZ-RP71/100/125/140
Air Protect Guide	PAC-SH63AG-E	PUHZ-RP71/100/125/140
Air Protect Guide	PAC-SG86AG-E	PUHZ-RP200/250 (Side)
Air Protect Guide	PAC-SG87AG-E	PUHZ-RP200/250 (Front/Back)
Drain Socket	PAC-SG61DS-E	PUHZ-RP71/100/125/140
Drain Socket	MAC-851DS	SUZ-KA25/35
Drain Socket	MAC-811DS	SUZ-KA50/60/71
Drain Kit	PAC-SG92DS-E	PUHZ-RP200/250
Drain Pan	PAC-SG64DP-E	PUHZ-RP71/100/125/140
Wireless Remote Controller	PAR-SL9CA-E	SEZ-KA35/50/60/71
Receiver for Wireless Remote Controller	PAR-SA9CA-E	
Control / Service Tool	PAC-SK52ST-E	All PUHZ
Distribution Pipe For Twin	MSDD-50SR-E	PUHZ-RP140
Distribution Pipe For Twin	MSDD-50WR-E	PUHZ-RP200/250
Distribution Pipe For Triple	MSDT-111R-E	PUHZ-RP200/250
Distribution Pipe For Quadruple	MSDF-1111R-E	PUHZ-RP200/250
M-NET Adapter	PAC-SF80MA-E	All PUHZ
Program Timer	PAC-SC32PTA	All PUHZ
Remote Sensor	PAC-SE41TS-E	All PUHZ
Remote On/Off Adapter	PAC-SE55RA-E	All PUHZ

Part Name	Model Name	Application Name
Remote Operation Adapter	PAC-SF40RM-E	All PUHZ
L-shape Connection Pipe	PAC-SC84PI-E	PKA-RP71
L-shape Connection Pipe	PAC-SC86PI-E	PKA-RP100
High Efficiency Filter	PAC-SE80KF-E	PCA-RP50
High Efficiency Filter	PAC-SE81KF-E	PCA-RP60/71/100
High Efficiency Filter	PAC-SE82KF-E	PCA-RP125/140
Air Filter	PAC-1000FT	SEZ-KA
Wired Remote Controller Kit	PAR-21MAAT-E	PKA-RP
Wireless Remote Controller Kit	PAR-SL99B-E	PCA-RP
Power Supply Terminal Kit	PAC-SG96HR-E	All P Series
Drain Pump	PAC-SE90DM-E	PKA-RP
Drain Pump	PAC-SH20DM-E	PCA-RP50/60
Drain Pump	PAC-SH21DM-E	PCA-RP71
Drain Pump	PAC-SH22DM-E	PCA-RP100/125/140
“i-see Sensor” Corner Panel	PAC-SA1ME-E	PLA-RP
Air Outlet Shutter Plate	PAC-SH51SP-E	PLA-RP
HIgh Efficiency Filter Element	PAC-SH59KF-E	PLA-RP
Multi Function Casement	PAC-SH53TM-E	PLA-RP
Flange for Fresh Air Intake	PAC-SH65OF-E	PLA-RP
Space Panel	PAC-SH48AS-E	PLA-RP
Wiring Replace Kit	PAC-SH52HR-E	PLA-RP
Built-in Wireless Remote Control Receiver Kit	PAR-SA9FA-E	PLA-RP

Refrigerant Piping

Capacity	Between indoor & outdoor units		Pipe size OD / mm (in.)	Thickness (mm)
	Max. height difference / m	Max. piping length / m		
SUZ-KA25	12	20	Liquid: ø6.35	t 0.8
			Gas: ø9.52	t 0.8
SUZ-KA35	12	20	Liquid: ø6.35	t 0.8
			Gas: ø9.52	t 0.8
SUZ-KA50	30	30	Liquid: ø6.35	t 0.8
			Gas: ø12.7	t 0.8
SUZ-KA60	30	30	Liquid: ø6.35	t 0.8
			Gas: ø15.88	t 1.0
SUZ-KA71	30	30	Liquid: ø9.52	t 0.8
			Gas: ø15.88	t 1.0
PUHZ-RP71	30	50	Liquid: ø9.52 (3 / 8)	t 0.8
			Gas: ø15.88 (5 / 8)	t 1.0
PUHZ-RP100/125/140	30	75	Liquid: ø9.52 (3 / 8)	t 0.8
			Gas: ø15.88 (5 / 8)	t 1.0
PUHZ-RP200	40	120	Liquid: ø9.52 (3 / 8)	t 0.8
			Gas: ø25.4	t 1.0
PUHZ-RP250	40	120	Liquid: ø12.7	t 0.8
			Gas: ø28.58	t 1.0

Amount of Necessary Refrigerant [R410A: kg]

Piping length	Factory charged	Additional charged					Calculation
	7m	10m	15m	20m	25m	30m	
SUZ-KA25	0.9	0.15	0.3	0.45	—	—	Xg = 30g/m × (length-5)
SUZ-KA35	1.05	0.15	0.3	0.45	—	—	
SUZ-KA50	1.6	0.06	0.16	0.26	0.36	0.46	Xg = 20g/m × (length-7)
SUZ-KA60	1.8	0.06	0.16	0.26	0.36	0.46	
SUZ-KA71	2.0	0.165	0.44	0.715	0.99	1.265	Xg = 55g/m × (length-7)

Piping length	Factory charged	Additional charged			
	10 - 30m	31 - 40m	41 - 50m	51 - 60m	61 - 75m
PUHZ-RP71	3.5	0.6	1.2	—	—
PUHZ-RP100/125/140	5.0	0.6	1.2	1.8	2.4

Piping length	Factory charged	Additional charged				
	10 - 30m	31 - 40m	41 - 50m	51 - 60m	61 - 70m	71 - 120m
PUHZ-RP200	10.5	0.9	1.8	2.7	3.6	Please refer to the manual
PUHZ-RP250	10.5	1.2	2.4	3.6	4.8	

*The above values apply in the case of 1:1 connections.

ISO 9001 BUREAU VERITAS Certification
Certificate Number 49385

ISO 14001 JACO
Certificate Number EC97J1132

Mitsubishi Electric Shizuoka Works acquired ISO9001 certification under Series 9000 of the International Standard Organization (ISO) based on a review of Quality warranties for the production of air conditioning equipment. The plant also acquired environmental management system standard ISO 14001 certification.

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